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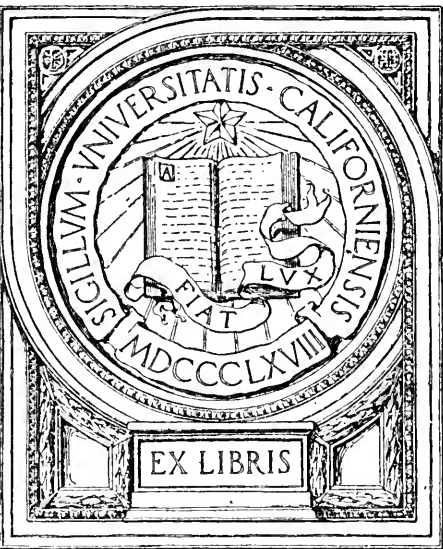




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ILLUSTRATED DESCRIPTION
OF A DESIGN IN THE
PERSIAN-INDIAN STYLE OF ARCHITECTURE

FOR

THE FIRST MASHRAK-EL-AZKAR
(BAHAI TEMPLE)
TO BE ERECTED IN AMERICA.

HUMBLY OFFERED TO

THE CENTER OF THE COVENANT

THROUGH THE BAHAI TEMPLE UNITY

BY

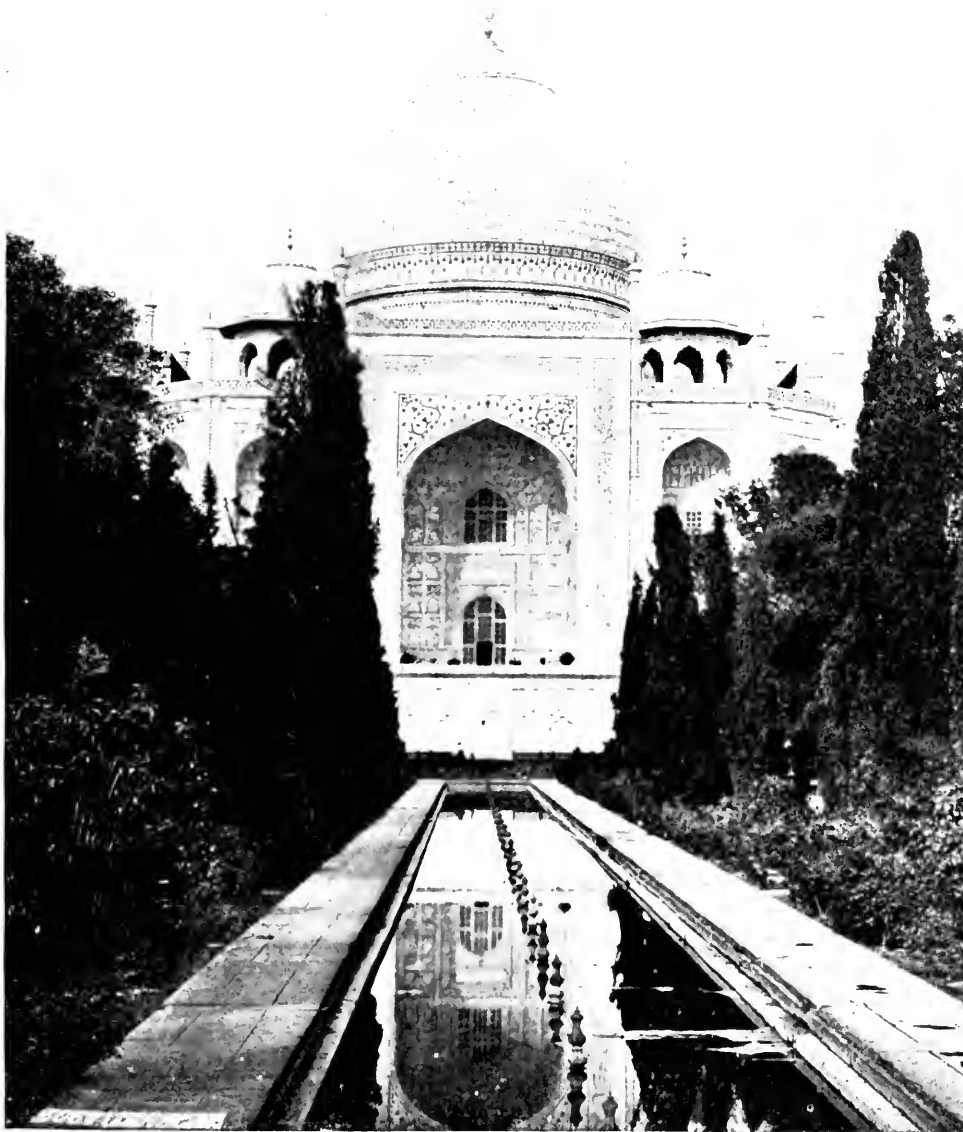
C. M. R.

APRIL 26-28

1920

Chas. Mason Remey

R42



The Taj-Mahal

462991

ARCHITECTS PREFACE.

The Bahai Revelation has been given to the world that through the knowledge of the divine teaching and through the spirit of this New Covenant, man may be quickened by the power of The Kingdom and that this spiritual illumination may become manifest in all his human activities.

As one becomes familiar with the Bahai Teaching and its principles and as one seeks to apply these in his life it is the most natural thing in the world that he should desire to express these principles and religious ideals in the terms and language of his own art, craft or profession. As with countless others such was my own experience. Since my connection with the Bahai Cause, during the past twenty years, in the pursuance of my study of architecture at home and abroad in many parts of the world, I have had constantly in mind the great Bahai Mashrak-El-Azkar the first of its kind to be erected in America, my desire being that I might be able to express in terms of architecture an offering toward this great temple.

This absorbing interest has led me, during the past twelve years, to make a series of architectural studies and preliminary designs for this edifice showing treatments of varying dimensions in nine different styles of architecture. These were offered to Abdul Baha in the hope that this work might be of some service when the time arrived for the formulation of a building design for the Mashrak-El-Azkar.

This series of designs has been exhibited in several art galleries and universities throughout the country, such as the National Gallery of Art, which is a part of the Smithsonian Institution in Washington, the Boston Public Library as well as in other public libraries, in the Museums of Art of St. Louis and Syracuse, and at the Universities of Illinois, George Washington, Cornell, the Carnegie Institute of Pittsburgh, etc. In holding these exhibitions, which were usually accompanied by lectures attended by architects, teachers, patrons of the arts and others, it was my hope to interest people in the Bahai Covenant by thus introducing the subject through the temple of the Mashrak-El-Azkar and its architectural and spiritual significance.

When the word was received from Abdul Baha that a choice of designs submitted for the Mashrak-El-Azkar was to be made by the delegates seated in this Twelfth Annual Convention of Bahais in America held in New York, April 26 - 28, 1920, I felt moved to make, in addition to the drawings already mentioned, a set of models of the one of my designs which was done in the Persian-Indian style in order to present to the Convention in as graphic and as concrete a manner as possible the salient features of this design, which, in my estimation, so far as I now understand the matter as viewed from points both practical and spiritual, is, I feel, the best suited of my preliminary studies to meet this present problem. With the exception of this design in the Persian-Indian style, which is of quite modest dimensions, each of my other eight designs are too large in size and of too costly construction to be considered. Moreover, with the exception of the Arabian Moorish and the Persian designs, the others were not sufficiently oriental in character to satisfy the requirements of the problem in hand. Therefore between these practical and aesthetic conditions there seemed to us to be but this one of my designs to feature.

Since Abdul Baha ordered the Convention to choose one from among the designs which had been offered for the Mashrak-El-Azkar, I did not deem it advisable to prepare any new designs, nor to alter those which I had

previously made. The models and the large drawings of this Persian-Indian design, which I am offering together with my first drawings, are merely enlargements and developments of the original design, there have been no changes in the style of the design, its treatment nor dimensions.

STYLE.

While engaged in this work my concept of an architectural treatment for the Mashrak-El-Azkar underwent many changes and modifications. In considering a style for the first design made the Byzantine then suggested itself to me as combining in one complete and developed style of architecture, the characters of both the Orient and the Occident. Later on in the work I made studies in various other styles from the classic to the ultra modern which work included some of the styles of the Orient. Toward the close of this study I received an excerpt from a Tablet of Abdul Baha's addressed to Mrs. Kate Ives in which He mentioned the Mashrak-El-Azkar as follows:

"That Divine Form manifested itself in America and entered the Great Temple which shall soon be constructed therein. This Glorious Temple resembles the Orient Edifices and soon you will see it erected there with a most solid foundation and strongest basis."

Furthermore, I learned that it was reported that Abdul Baha showed a picture of the Taj-Mahal to Mr. P _____ W _____ suggesting that the Mashrak-El-Azkar have a similar entrance.

These words of Abdul Baha quite revolutionized my thought regarding the style for this first great Bahai Temple to be erected here in the West. With time and more study the architecture of the Orient has made its appeal more and more to me as being the best suited of all styles as a foundation for, and a first step toward, the universal style of world architecture eventually to find its perfect development in the Mashrak-El-Azkar of future generations. I have been pleased to note latterly that the majority of the people who have seen my preliminary drawings have expressed a preference for the Persian and the Persian-Indian styles.

Styles in architecture are never one-man inventions but rather they are the result of a growth and are brought into existence through the combined and united efforts of a number of people, inspired by a common religious ideal, expressing their zeal in the building of temples.

Knowing this principle, I have not had it in mind to attempt to create anything new in style which, had I attempted it, would, at best have been merely a personal expression of my own. Rather I sought merely to apply to this present problem here in America to meet our local needs the Islamic style of architecture of Persia and India, which style, like all other pure styles, is devoid of the personality of anyone of its individual originators, but which, like all other styles, is flexible in the hands of the architect allowing him freely to express himself in his composition and arrangement of structural and decorative motives.

Here is the line of demarkation, as I find it, between style and composition of design. Style is impersonal and so far as the individual is concerned, is a fixed factor in architecture. Composition of structure and design upon the other hand follows the personal individual judgment and fancy of the architect.

The basis from which each of the styles in architecture of the past has come forth has been found in the buildings of a previous civilization. Thus the Romans adapted the Greek architectural forms to meet their own needs with the result that in time a new style resulted! In like manner the Christian styles, the Byzantine, the Romanesque and the Gothic, step by step, grew out from the Roman style and similarly Islamic architecture was adapted from the Byzantine Churches of Turkey in Europe as these temples of the former religion were appropriated by Moslem conquerors and used as mosques.

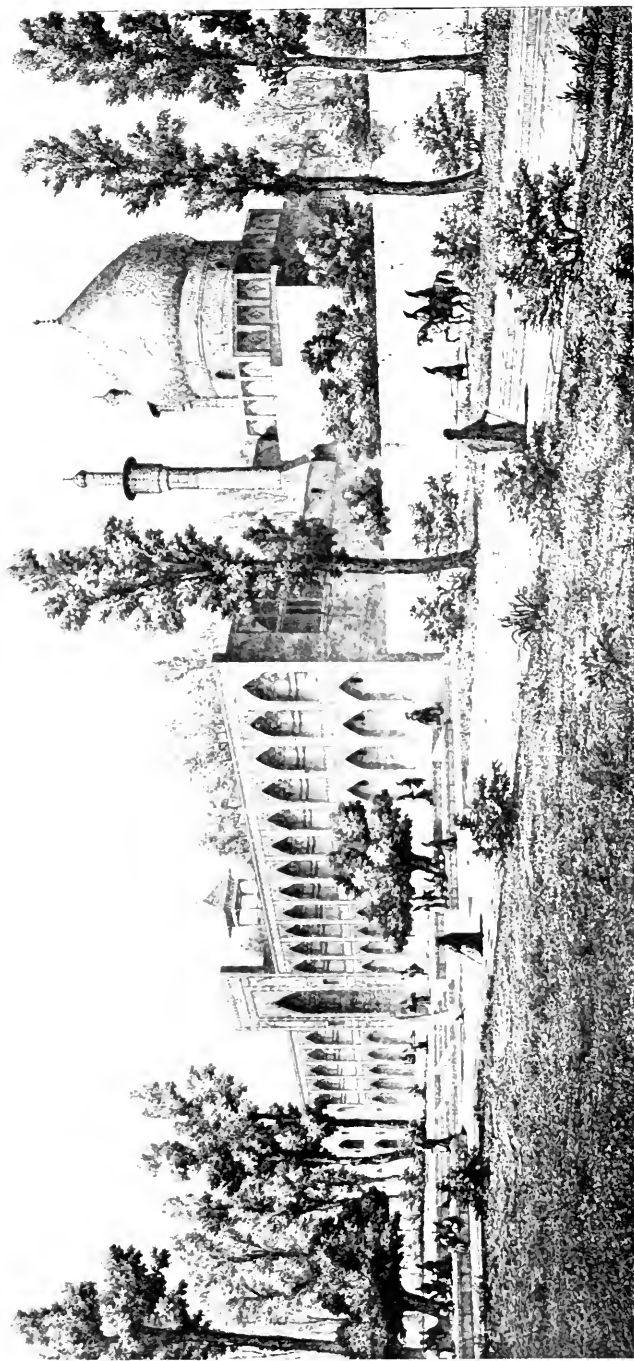
In as much as the early scenes of the Bahai Revelation were laid in Persia and since the background of this Cause partakes to so large an extent of the language and the traditions of that land and of her people, from many viewpoints of consideration the Persian style of architecture would suggest itself as the point of departure for the Mashrak-El-Azkars of the present day, having in mind that this is but a first step toward the Bahai Style eventually to be developed.

The great universal Bahai Style of architecture will undoubtedly appear through the rise of the people to live the Bahai life, through the sacrifice of the individual wills of the people and all personal desires to the will of The Covenant, through the establishment of the Divine institutions of The Cause of God, and through the working together of many architects and builders in perfect harmony for the one great end which is to glorify God in the building of many Mashrak-El-Azkars. Future generations will see appearing in these temples yet to be built, a great and new style in architecture which shall far transcend all previous styles in its structure and beauty. Undoubtedly this style will only be realized through the unity and fusion of many souls and will be forthcoming only as the Cause grows and spreads in the heart of humanity creating the Abha civilization of the Kingdom upon earth of which it, the Bahai Style, will be an impersonal expression.

THE PERSIAN-INDIAN STYLE OF ARCHITECTURE.

The Persian Style of Architecture was developed under the influence brought into Persia by the early Moslem civilization. Some of its grandest applications are found in the mosques of Esphahan, Khoum, Kashan, and Khazvin, while the same style is found in these and other cities, successfully applied to such buildings as bazaars, caravansaries, palaces, colleges, gateways, bridges, and other civic structures.

The lower wall surfaces of the more elegant of these buildings are often revetted with slabs of marble, while the main walls and upper parts are usually in stone, brick, terra cotta, and brightly colored tiles. Though some of these buildings have stood for centuries, the coloring in many instances remains quite fresh and even brilliant.



Medreseh Maderi-Chah-Sultan-Hussein
Esfahan, Persia.

The richness in color decoration of the domes and minarets of the Persian mosques, rising from a foreground of gardens and silhouetted against a cloudless sky, is memorable and very beautiful. This style of decoration, so in harmony with its oriental environment, has a charm of its own, to which many Persian writers, as well as foreigners travelling in that country, have testified.

The Indian Style of Architecture, which is an adaptation of the Persian Style, had its development during the Mogul rule in India. Some of the finest examples of this style are found in the vicinity of Delhi, India's ancient capital, while the world-famous Taj-Mahal, near the city of Agra is without doubt the best known and by many the most admired building of the epoch.

The Taj-Mahal is finished within and without with white marble inlaid with jasper, lapis lazuli, and other semi-precious stones. It is surrounded by a garden intersected by waterways separated by richly colored flowers and foliage, and produces an effect of beauty beyond the power of words to describe.

THE MASHRAK-EL-AZKAR OF ESHKHBAD.

The Mahsrak-El-Azkar of Eshkhabad in Russian Turkistan is built on the lines of the Persian-Indian style. Like the Taj-Mahal its main portal is in the form of a high pointed oriental arch extending two stories in height. This main or principal entrance to the temple, flanked by two turrets or minarets, faces in the direction of The Holy Land. Several doorways of lesser importance give access to the building from the other sides while the garden is laid off as specified in the Tablets and Holy Writings. There are nine avenues of approach to the temple dividing the grounds into nine gardens, each with its fountain, flower beds and lawns.

The construction of this temple is of masonry - that is to say it is "wall bearing" (the masonry walls carrying the weight of the floors and roofs) while some steel or iron strengthening is used in the floors and the dome. This architecture is not heavy to the eye, yet the walls and abutments of the building are massive and it is quite evident that the permanency and durability of the edifice was of major consideration in the minds of its builders.

SYMBOLOLOGY.

Bahai Symbology is observed in many ways in the composition of this design. 1 - 3 - 5 - 7 - 9 - 12 - 19 - 40 and 95 will be found recurring in this number of repeated architectural and decorative motives. For example there are nineteen windows or bays in the drum of the dome. Three of these are over the main entrance which faces the East, while two are over each of



The Mashrak-El-Azkar of
Eshkhabad Under Construction

the other eight faces of the building. This treatment gives a composition based upon 9 and 19 which is both symbolic and practical allowing for the architectural development of the main front of the edifice with its great portal facing the East - thus giving to this front an importance over the other sides of the building.

CONSTRUCTION.

The mode of construction to be adhered to and the materials to be used are of primary consideration in making the design for a building; because these structural features need to be considered at every point in formulating the composition, in the architectural treatment and in designing the decoration of the building.

At the present time in this country there are two systems of construction generally used in buildings of monumental proportions - namely - masonry and steel encased in masonry. These two systems are as diametrically opposite to one another in principle of structure, as stone construction differs from that of timber.

In the former construction of all masonry the walls carry their own weight together with that of the floors, roofs and other parts of the superstructure, the equilibrium of the whole depending upon the mass of the masonry and its distribution.

In the latter construction of steel supporting masonry, as typified in the high American office building, the solidity of the structure depends upon a frame work of steel which supports the building, only a thin veneer of masonry in the form of concrete, terra cotta, brick or stone, being used to enclose the steel and protect it against the action of the elements.

In mentioning these two principles of structure, I am treating of, and giving emphasis to, the difference of these two extremes of construction yet many large buildings of importance combine both of these two structural principles in a proportion commensurate with their particular requirements.

For buildings such as factories, warehouses, office buildings and the like where space and economy of construction are of primary requirements and where permanency beyond that for a few immediate decades is of secondary consideration, the reinforced steel structure is without doubt the most efficient. Upon the other hand where a building is being put up for all time, or as nearly for all time as is possible, I feel that a construction of all masonry is the only type to be considered. This latter is our problem in the Maahrak-El-Azkar.

We Bahais are building an edifice which should be so built as to stand for countless ages to come as well as meet our needs of the present day. Therefore, I feel that we cannot afford to take any risks, but should confine our building efforts along the well tried out lines of architecture which have endured for centuries in the old world of Europe and the Orient.

All of the great temples of the past, built during the days when the various styles were pure and before any decadence had set in, were built of self supporting masonry. This principle was adhered to alike by all the ancients and also in comparatively more modern times by the builders of the Byzantine, Romanesque, Gothic, Arabian, Moorish, Persian and Indian epochs.

In this present day the Shrine of The Bab on Mount Carmel, built by Abdul Baha, is likewise of massive masonry. Also the Mashrak-El-Azkar of Eshkhabad is of this construction. Though some of its floors and the upper part of its dome are of steel construction, yet all of its bearing walls, which give solidity and permanency to the structure, are of self supporting masonry.

A considerable study of this problem of construction has convinced me that for the American Mashrak-El-Azkar a structure of masonry is better than one of steel, because of its lasting qualities. Therefore this design in the Persian-Indian style, I have conceived to be built entirely of masonry not depending upon steel reinforcing to hold the masonry in place. My reasoning in addition to that already mentioned is as follows. Steel, though stronger than masonry is yet more perishable. Where steel is used to support masonry, the time is sure to come when the steel must give away because of the two materials it is the less durable. Since this steel is encased in masonry, which is less perishable than itself, its deterioration is hidden from view and cannot be seen nor known until a catastrophe reveals the true state of affairs. In my estimation, in all construction where permanency is an important factor, the more durable material should support the less durable. One of the structural perfections of the human body is that the most durable tissues, namely the bones, support the less durable tissues of the other parts and organs. This basic structural and mechanical reasoning applied to the construction of the Mashrak-El-Azkar has caused me to conceive this design in the Persian-Indian style to be executed in masonry.

SIZE.

Inasmuch as the desire of Abdul Baha is that the building of this Mashrak-El-Azkar be accomplished as speedily as possible, preferably during the day of The Covenant, the size of this Persian-Indian design has been kept down as much as possible in order to show the architectural possibilities of a building of moderate cost and dimensions.

The main part of this building is 95 feet in outside diameter, while added to this is a projection toward the East forming the main portal of the temple with its steps of approach, the height from the ground to the extreme top of the dome being 160 feet.

One feature of the Mashrak-El-Azkar of Eshkhabad, which adds much to its size, is the series of spacious loggias upon both the main and the gallery floors encircling this building and opening out upon the gardens. Loggias form a most important feature of the oriental architecture of the semi-tropical countries where the people are able to live out of doors most

of the time. The climate of Chicago being so different from that of the Orient it seemed to me to be more practical not to have open loggias where for several months of the year ice and snow would collect causing trouble. Having no loggias, therefore, the diameter of this design is considerably less than that of the Eshkhabad Temple, although as I recall the interior of that Mashrak-El-Azkar, the interior of this design is of about the same dimensions.

COST.

Until working drawings with specifications are completed, it is impossible to estimate with exactness the cost of any building, and in these days of economic pressure and unrest even with complete drawings and specifications estimates are at best approximate on account of the changing conditions in the world of labor. However, after having conferred with several men of much practical experience in building, I believe that this design could be built for from \$400,000 to \$650,000 depending upon the materials employed. These approximate figures do not include the elaborate mosaic decoration of the interior nor the embellishment of the grounds, approaches, fountains, retaining walls with the balustrades surrounding the grounds, etc., which all taken together with the building, would probably cost in the neighborhood of a million dollars. The interior decoration as well as the garden embellishments could be carried out any time after the temple of the Mashrak-El-Azkar is built.

Through the kindness of a brother Bahai, Mr. Allen B. McDaniel, who is one of the eminent structural engineers of this country, two estimates were made for the building of this design. One was for its execution in Bedford limestone, which amounted to \$550,000; the other was for a fine grade of white granite and was \$650,000. Mr. McDaniel is at present doing some work here in Washington for the Government. In his office he has several expert estimators of experience and reputation who are in touch with general building conditions throughout the country. These gentlemen worked with him in formulating these figures so I feel that this is an exact estimate as we can with reason expect to have under these present building conditions.

Another Bahai, Mr. E. R. Boyle, of the Boyle-Robertson Construction Company of Washington, D. C., which concern has had a large experience in the putting up of big buildings, also kindly figured on this design. His approximate figure for a structure in Bedford limestone was \$540,000 - differing but \$10,000 from Mr. McDaniel's figure for the same material. Mr. Boyle thought that the building could be done in terra cotta for \$400,000, or in concrete and cement even cheaper than this, but he, like Mr. McDaniel, urged that these cheaper materials be not considered as they would not be suitable for a building of such importance as the Mashrak-El-Azkar.

My own thought coincides with that of these two engineers and is that only the very best and most durable material should be used in this temple. There are several kinds of fine white granite, some of which take

very beautiful carving and give an effect similar to that of marble. This material is of course more expensive than the more perishable materials, such as marble, lime and sandstones, but the best and most durable of anything is always more costly in the beginning than the cheaper materials. However, in the end the best is found to be the cheapest and the most satisfactory; therefore, I hope the Mashrak-El-Azkar will be built of the best and the most durable of materials which is granite, economizing, if necessary in the size of the building rather than in the quality of its construction.

As for an exterior wall treatment in concrete or cement, I strongly advise that these be not considered. In terra cotta, cement and concrete ornament, as commercially done in this country, one section is made and reproduced many times. In this hapless multiplication of detailed ornament there is no possibility of obtaining the beauty which so enhances the effect of a structure in which each stone is cut individually, for in the individual cutting of each particular bit of ornamentation is found a subtle variation which not only pleases the eye but makes its appeal to the aesthetic sense of the beholder giving a charm of which the commercial machine made ornament is devoid.

Most people recognize this principle as applied to textiles. For example, a hand made embroidery, tapestry, or piece of lace is superior to the same design reproduced by machinery. Thus in condemning any cast, terra cotta, concrete or cement treatment of ornament for the Mashrak-El-Azkar, I am merely applying to this problem the recognized principle of the superiority of hand made decoration and ornament over that which is machine made.

The climate of Chicago is rigorous and the elements are very active in their attack upon all structures. In my estimation, as well as that of the engineers with whom I have conferred, this should be sufficient reason to debar the use of any plastic materials, such as concrete, cement or stucco which do not withstand the action of the weather as does stone for the exterior treatment of walls, roofs, domes, etc. If there be any doubt in the minds of the friends as to the reality of this matter, I would strongly urge them to seek the advice of a commission of several engineers of known and established reputation.

DRAWINGS.

The following six photographic reproductions are of a series of drawings illustrating this design for the Mashrak-El-Azkar in the Persian-Indian style. They are as follows:-

Main elevation as viewed from The East.

General Plan of the building and grounds, a Plan of the roof of the building, and a Longitudinal Section showing the interior arrangement of the temple.

Perspective View of the temple as seen from one of the nine avenues of approach.

Large Plan of the Temple.

Large Elevation showing main portal with details of decoration.

Interior of the Rotunda of the Mashrak-El-Azkar as viewed from one of the galleries.

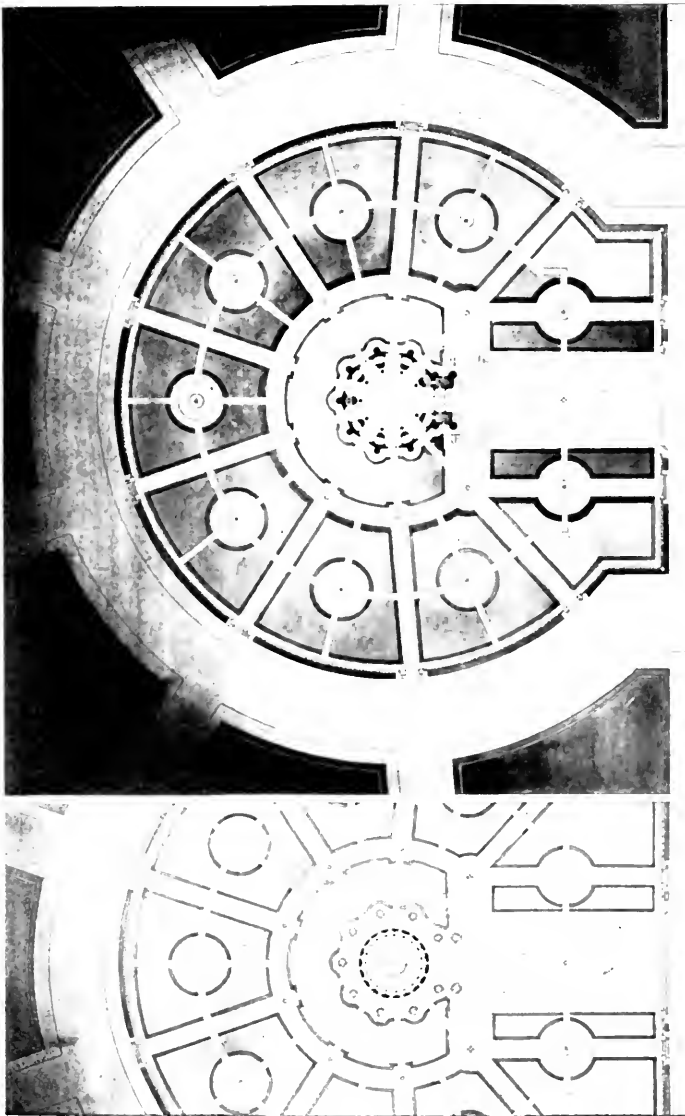


MASHREK EL-AZKAR

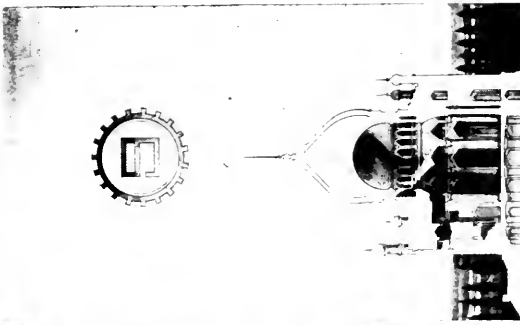


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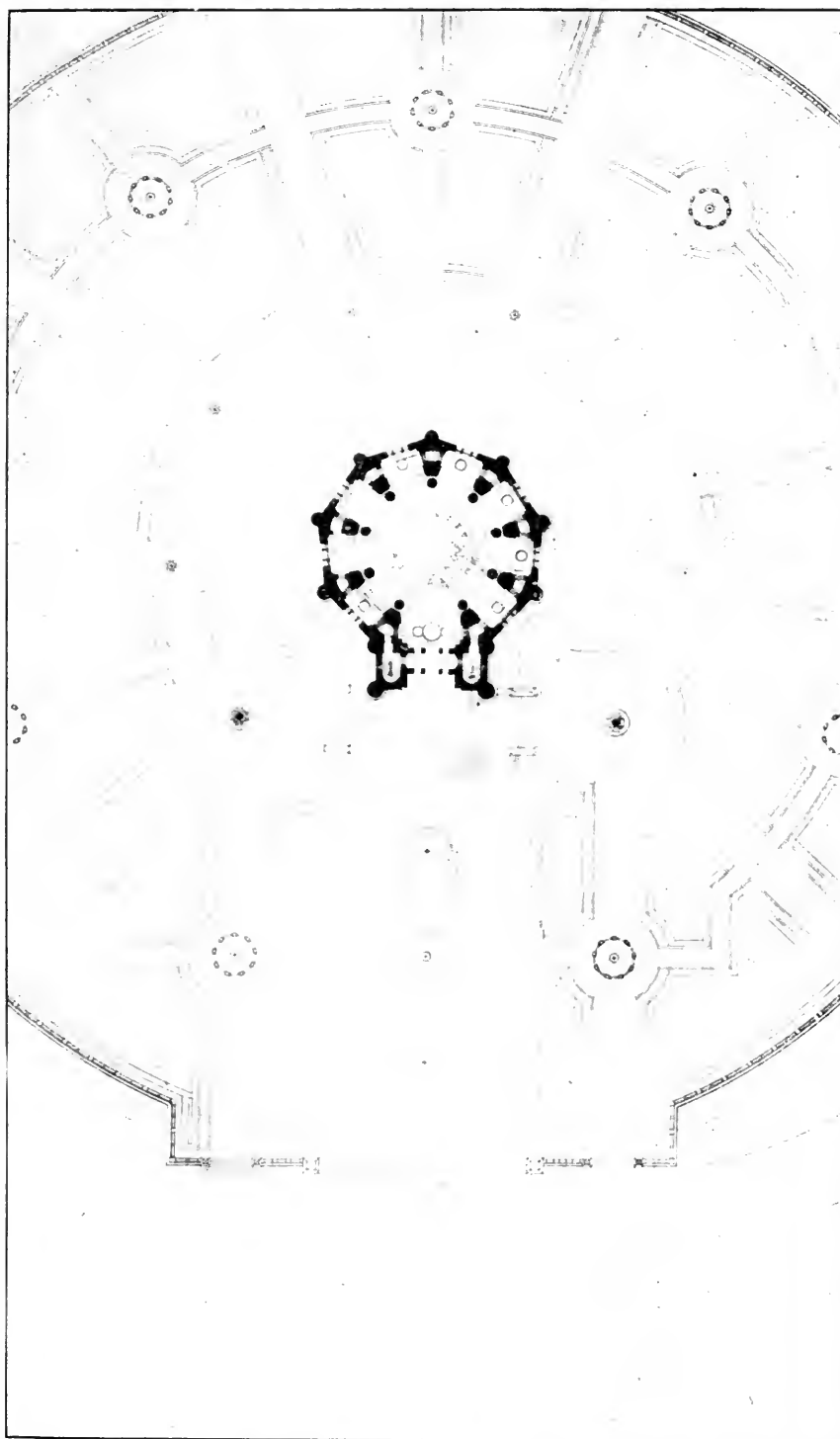
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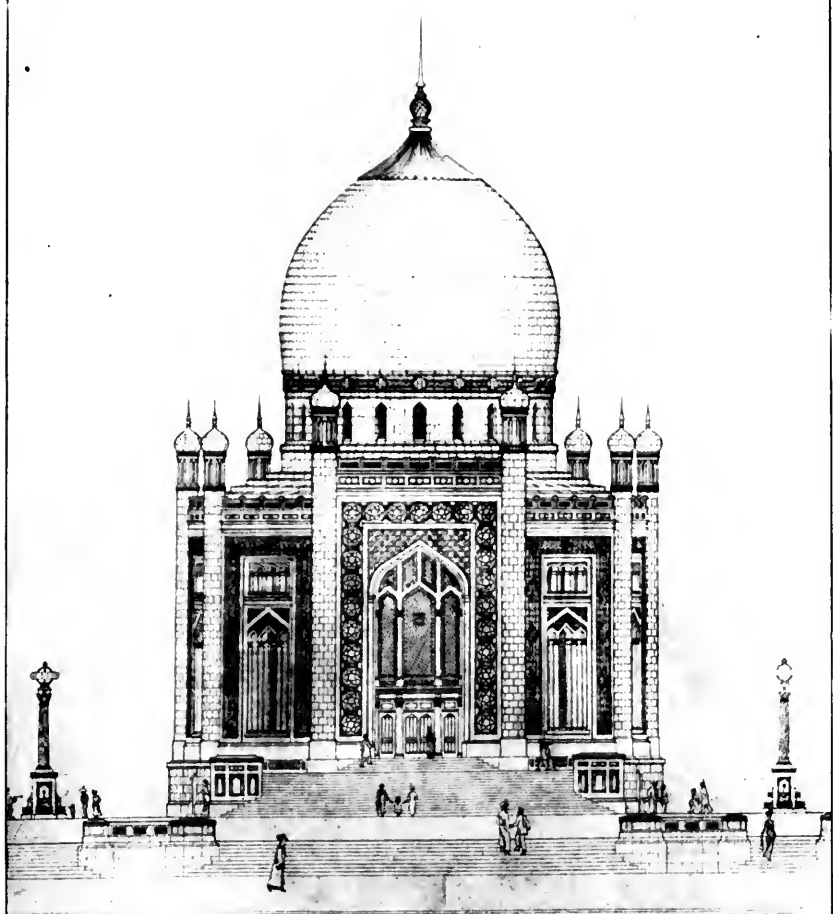


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TEMPLE



ELEVATION
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CHARLES MARION REHEV
ARCHTCT

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The figure consists of two parts. The top part shows a single hexagonal unit cell with vertices labeled a, b, c, d, e, f and internal points labeled $g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z$. The bottom part shows a larger section of the lattice with vertices labeled $A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z$ and internal points labeled $a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z$.

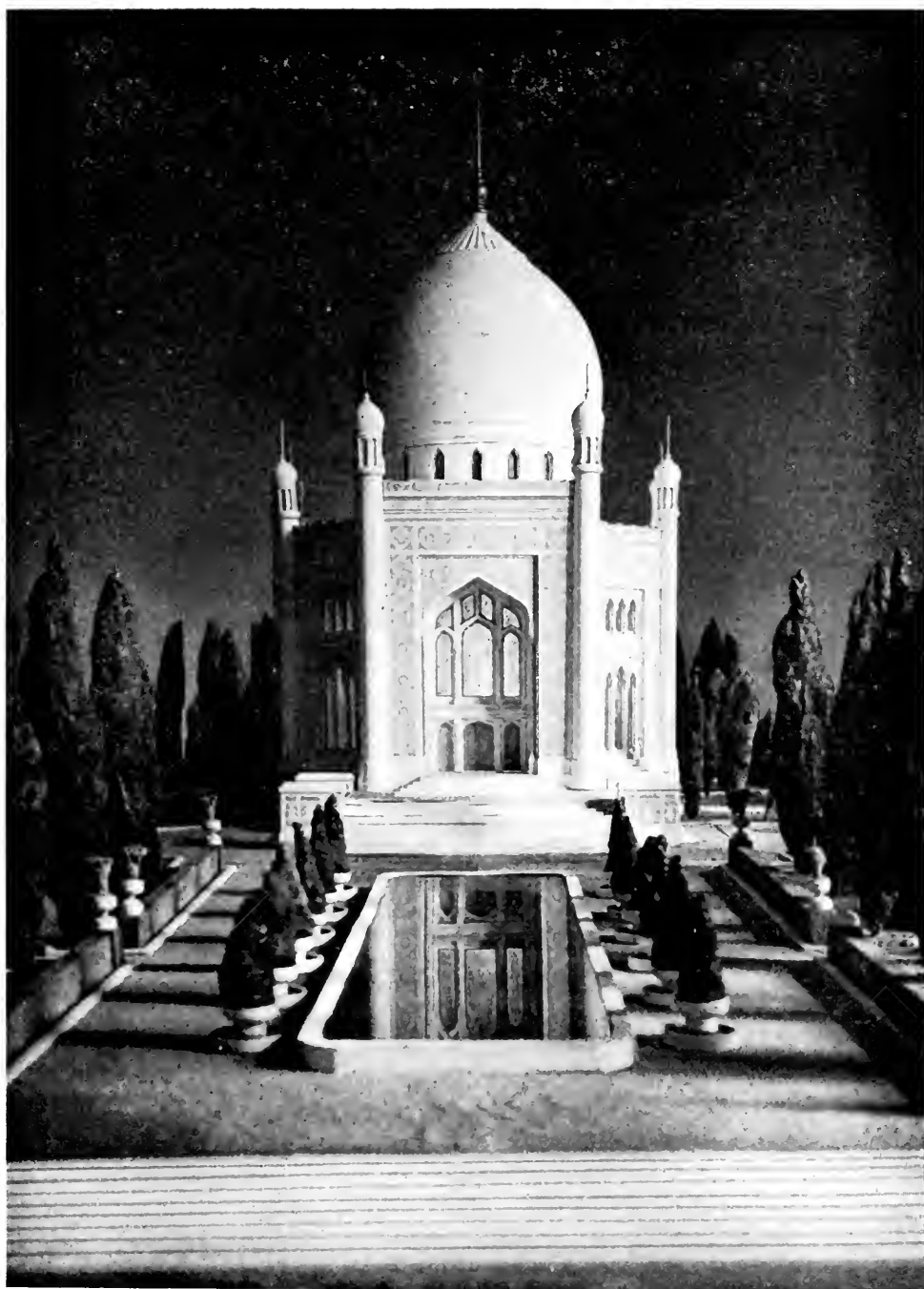
EXTERIOR MODEL.

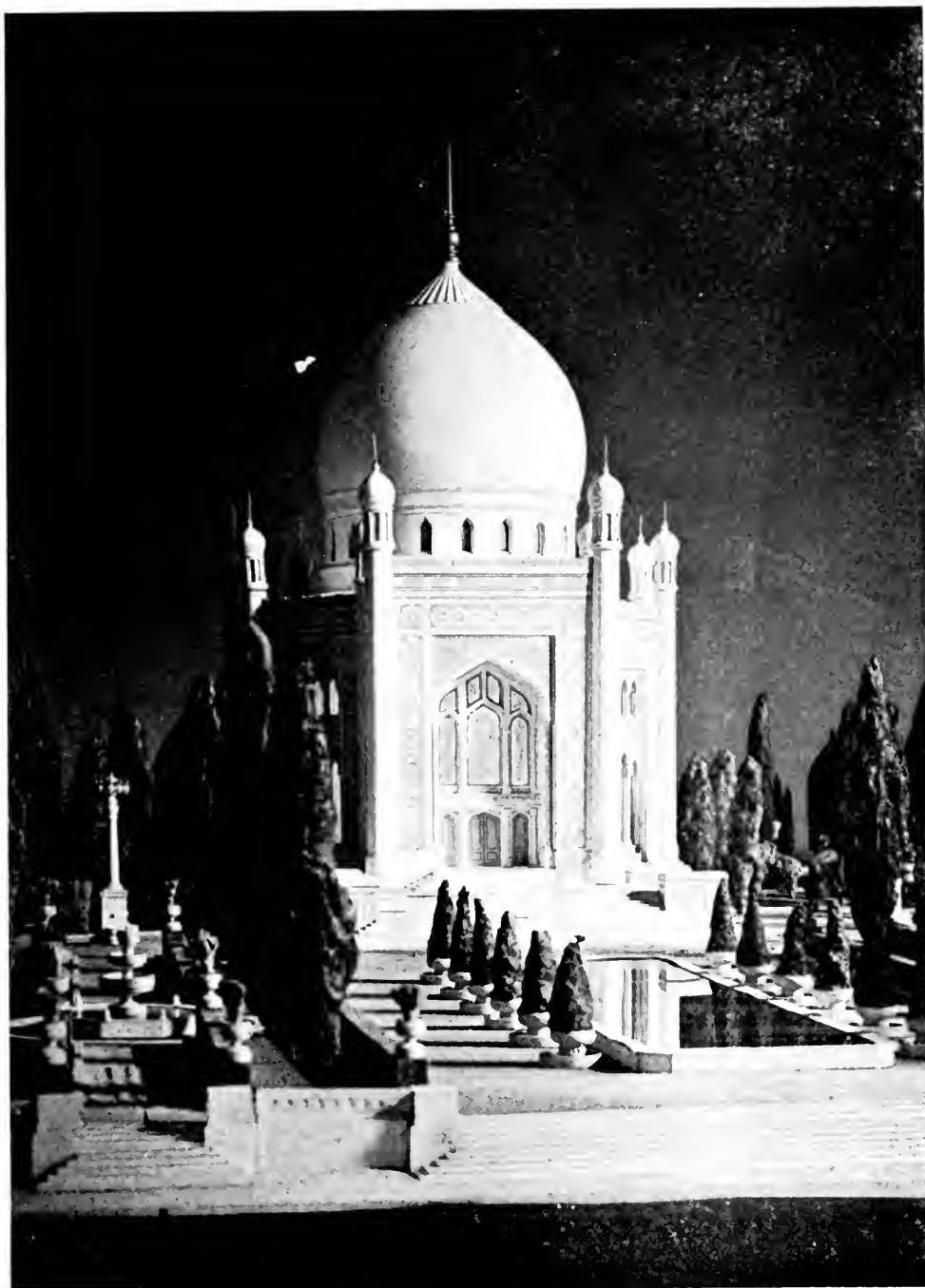
This model, built in sections so as to admit of handling and transportation, is constructed of wood, compo and bristol boards, plaster of Paris and other materials, the object being to reproduce, at a reasonably small scale, as realistic an effect as possible of this architectural treatment of the building from all sides, and also to give an idea of the arrangement of the surrounding parking with the system of nine radial avenues of approach to the temple -- forming nine gardens each with its walks, fountain, trees, hedges, lawns and flower beds.

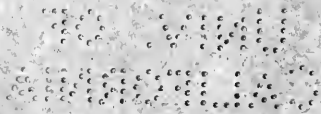
The temple proper with the fountains, garden vases, balustrades, steps and copings, are treated in white to give the effect of stone. The windows of the temple are filled with imitation stained and colored glass. The long mirror lake, suggested by the garden arrangement of the Taj - Mahal, and the basins of the nine fountains, are of green mirrored glass giving reflections of the building and the surrounding foliage, while the walks and pavements are sanded to represent gravel. The lawns are painted green after having been roughened to produce the effect of grass, while the hedges, shrubs and trees of different sizes are painted in various shades of the same color in order to lend as much reality as possible to the ensemble.

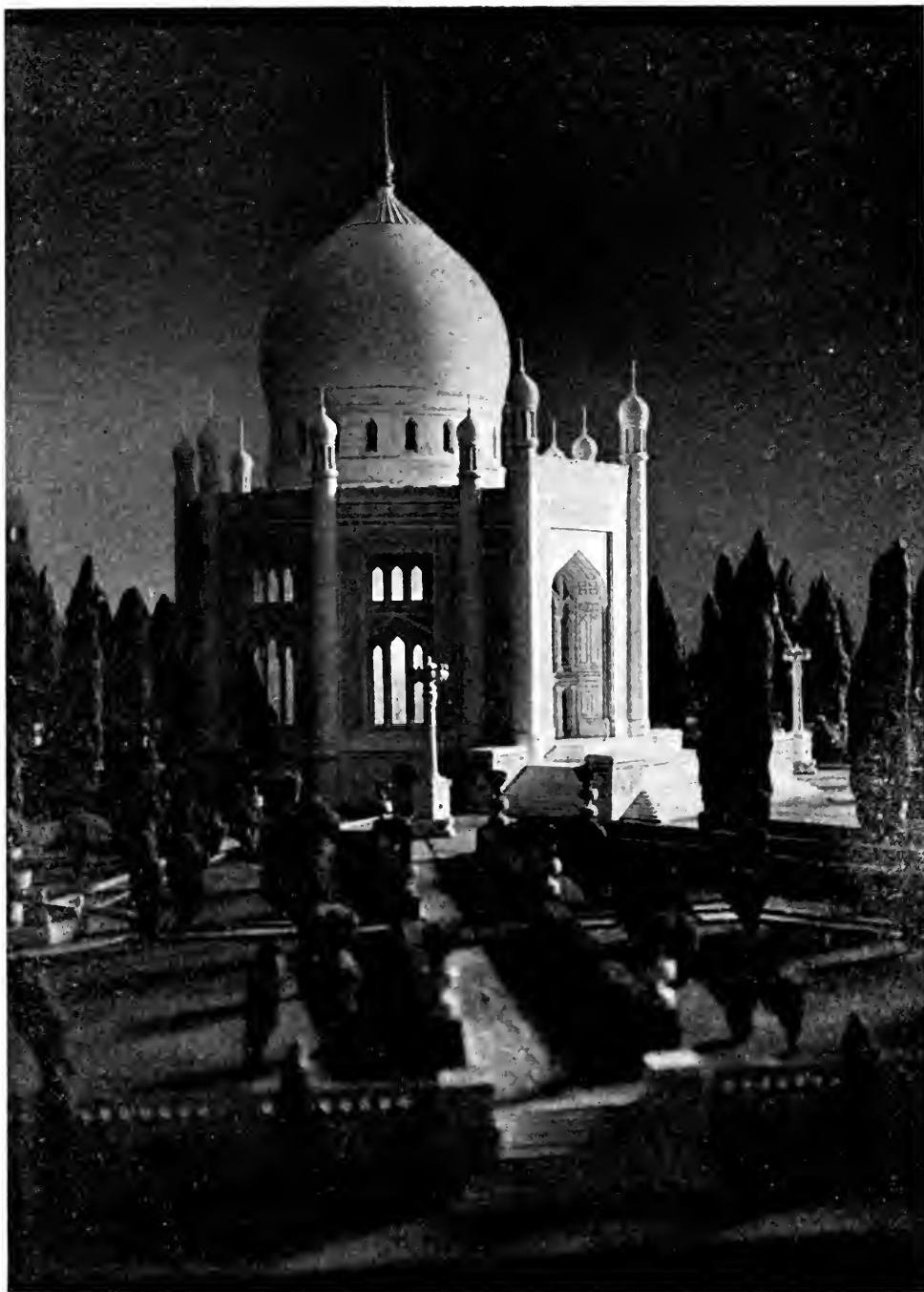
This model is built at the scale of $\frac{3}{8}$ of an inch to the foot and it represents the general layout suggested for the larger of the two pieces of land which comprise the sight for the Mashrak-El-Azkar. This piece of land is of such shape that it is capable of containing a circular layout of parking and gardens about five hundred feet in diameter. The model shows this entire circular layout in addition to which is an encircling walk outside of which is a driveway. The model is over seventeen (17) feet in diameter, the temple proper being about five feet high.

The following six illustrations are made from photographs of this Exterior Model.

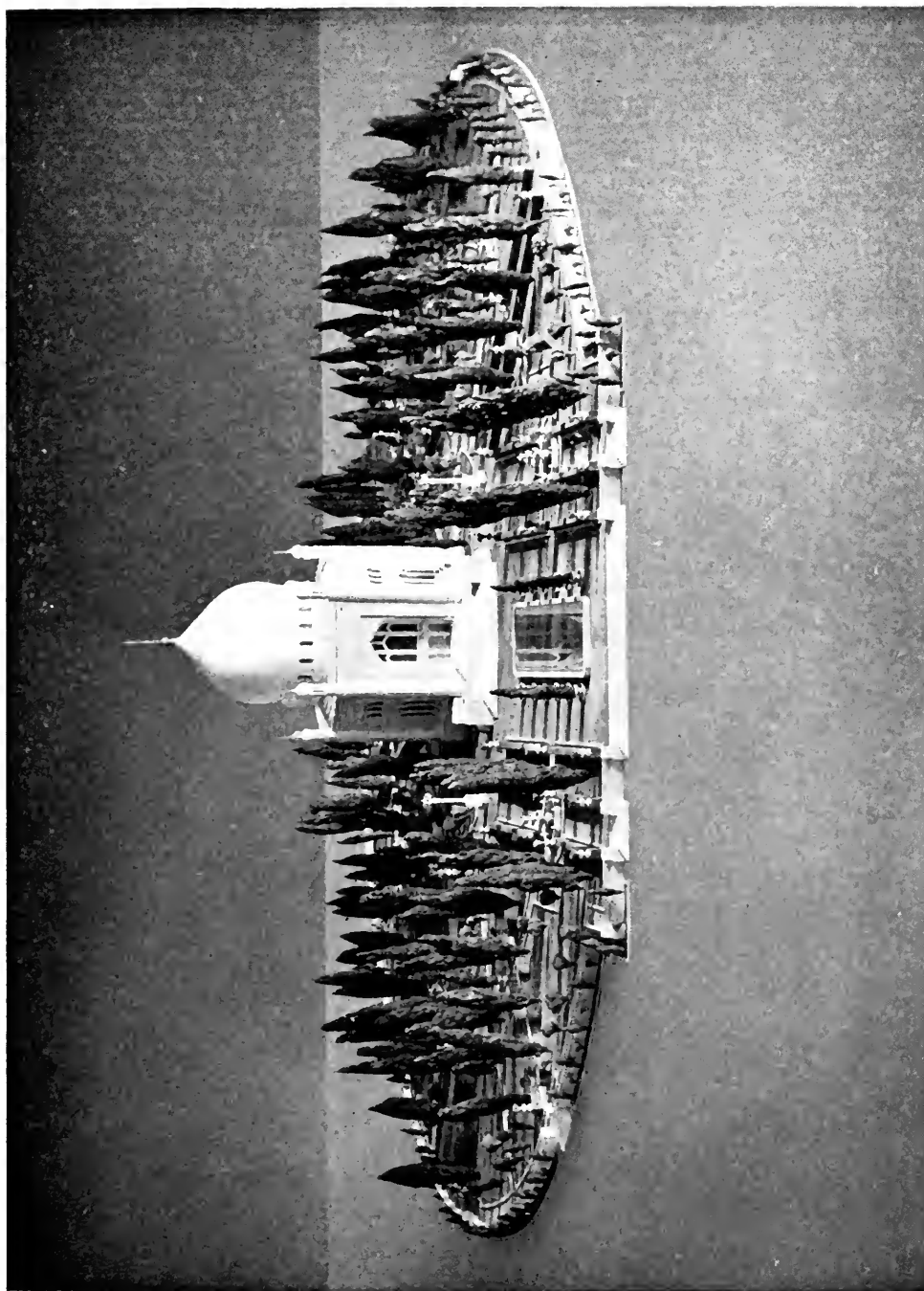


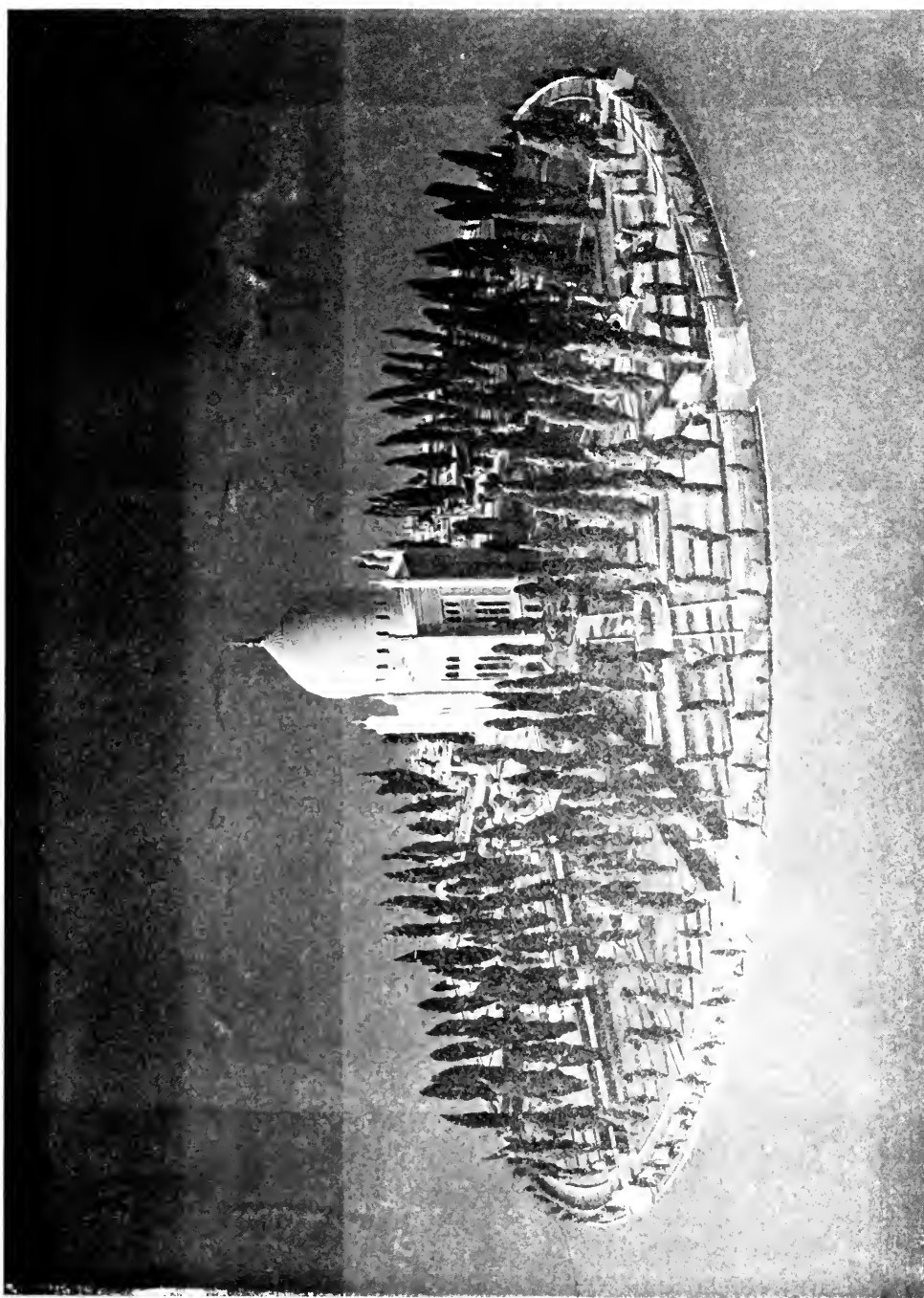












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INTERIOR MODEL.

This model shows the architectural treatment of the interior of the temple, with its central rotunda surrounded by an ambulatory and galleries. The walls, ceilings and dome are conceived to be in mosaics of gold and colors, while the floors, columns and base courses are of colored marble. - It is at the same scale as the exterior model, namely $\frac{3}{8}$ of an inch to the foot, and is built on a frame work of wood, the decorative features being executed in gold and colors on heavy bristol board. The windows, filled with imitation colored glass are lighted from behind in such a way as to produce an effect of sunlight, penetrating the interior from without. Blue is the predominating light in the rotunda which enters from above through the nineteen windows of the dome, while the lighting of the aisles and galleries of the building through the windows is a golden yellow. This combination of light effect has been very successfully worked out in the dome of the Invalides in Paris, which has great dignity and produces a profound effect upon all who enter.

In building this interior model my thought was to produce as nearly as possible a realistic effect of how the interior of this design would appear were it ever built. Unfortunately, I was unable to obtain a good photograph of this model - however the accompanying photographic illustration of the perspective drawing of the interior gives approximately the same idea of the interior as does the model.

DIORAMA.

The diorama gives a glimpse into the interior of the temple as seen from one of the galleries. This comprises a complete model of one of the chambers of the gallery executed at the scale of one inch to the foot and showing in colors and gold the decorative treatment of the interior. The other portions of the interior - such as the rotunda with its encircling aisles and galleries and the main entrance into the interior, seen through the archway, which separates the gallery from the rotunda, are drawn on the flat and rendered in color, the object being to produce as realistic an impression as possible of this interior view of the temple.

AFTERWORD.

This design is humbly offered to the Center of the Covenant through the Bahai Temple Unity.

My aim in this work has been to formulate a design as nearly as possible in harmony with the desire of Abdul Baha regarding this problem. This has been somewhat difficult on account of the fewness of the Revealed Words pertaining to the subject. Therefore I have been obliged to resort to my own initiative which I have reasoned out along the lines of thought outlined in this text, drawing for my inspiration largely from the design of the Mashrak-El-Azkar of Eshkhabad, which I understand was executed in harmony with the will of The Covenant.

Inasmuch as Abdul Baha has said that the design for the Mashrak-El-Azkar should be evolved through the combined efforts of a number of architects and designers, I have not considered my efforts in any other light than that of the offering of one individual toward this great spiritual edifice, any acceptable features of which are to be merged, with those from other sources, in the design to be built.

If any of my architectural ideas find favor in the sight of Abdul Baha, I shall be very happy, my hope being that, through cooperation others may improve upon that which I have attempted.

Chas. Mason Remey,

Washington, D. C.

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